Foundations of Algebra

Module 1: Number Sense and Quantity

MODULE ANALYSIS TABLE

| Lesson | Time Allotment | Must Have/Condense/Possibly Skip  Notes |
| --- | --- | --- |
| 1. [Building](#Variable) Number Sense Activities | 5-10 minutes daily | Use as warm-ups or openers |
| 2. [Fact](#Analyzing) Families | 60-90 minutes | Must Have |
| 3. [Is](#Set) it Reasonable? | 60-120 mins | Use the Intervention question and table to determine if students are ready for scenarios |
| 4. [Yummy…Chocolate](#Let) 3-Act Task | 90-120 mins | Must Have- may want to spend two class periods if this is a first experience w/ 3 Act Tasks |
| Problem Solving Assessment | 60 mins | Must Have- may need to edit questions based on students reading ability |
| 5. [Birthday](#Solving) Cake | 60- 90 mins | Must Have- (skip the opener)  need to make explicit connection between division and fractions |
| 6. [Fraction](#Deconstructing) Clues | 60-90 mins | Must Have- good place to discuss fractions that are equivalent to 1/2 |
| 7. [Multiplying](#Steps) Fractions | 60 mins | Delay or use intervention table for this lesson -need to use area model w/whole number multiplication prior to using w/ multiplication of fractions. Also consider including discussion about pattern when multiplying by smaller and smaller whole numbers (i.e. 4,3,2,1) prior to multiplying by a fraction. |
| 8. [Birthday](#TV) Cookout | 60 mins | Not a Must Have for addressing learning target. Use within another lesson that addresses multiplication of whole numbers and fractions |
| 9. [Chance](#When) of Surgery | 30 mins | Could combine with Birthday Cookout. Scenario may need to be edited based on students reading ability. |
| 10. Fractional Divisors | 120 mins | May need to extend the opener/activator to show more examples of division. Consider simplifying second scenario to whole number (i.e. 6 instead of 2 ½). |
| 11. [Dividing](#Yogurt) Fractions With Models | 120 mins | May need to extend this lesson for more practice. Consider including discussion about pattern when dividing by smaller and smaller whole numbers (i.e. 4,3,2,1) prior to dividing by a fraction. |
| 12. [Representing](#Battleship) Powers of Ten Using Base Ten Blocks | 30 mins | Not a complete lesson. Use as an exploration with base ten manipulative for decimal representation. |
| 13. [Multiplying](#Acting) by Powers of Ten | 30 mins | Not a complete lesson. Use as an exploration with base ten manipulative for decimal representation. |
| 14. [Patterns-R-Us](#Acting) | 60 - 90 mins | Must Have- good opener, work session focuses on exponents so be sure to develop this understanding during opener. |
| 15. [Comparing](#Free) Decimals | 60 mins | Must Have- consider switching opener and work session |
| 16. [Are](#Stacking) These Equivalent? | 60-90 mins | Must Have- consider using money to represent decimal amounts on number line in opener and move point so it will round to 0.1. |
| 17. [Integers](#Planning) on a number line | 60 mins | Must Have- need to use intervention table game to make a complete lesson |
| 18. [FAL](#Field): Using Positive and Negative Numbers in Context | 120 mins | Must Have- read entire lesson in link attached to this lesson |
| 19. Deep Freeze | 60 mins | Not a complete lesson- consider using Work Session Act 4 as the Opener and Intervention table game as Work Session. |
| 20. [Penny](#Cheaper) Cube | 90 mins | Possibly Skip |
| 21. Multiplying Rational Numbers | 60-90 mins | Must Have- consider using patterns to show results when multiplying integers. |
| 22. Pattern of Multiplication and Division | 120-180 mins | Not a must have- consider using patterns of multiplication and division to teach this concept rather than the model suggested. |
| 23. Rational or Irrational? | 60- 90 mins | Not a must have |
| 24. Estimating the Square Root of a Number | 60-90 mins | Must Have- consider delaying this lesson until completion of lesson 25. |
| 25. Decimal Approximation of Roots | 60-90 mins | Must Have- consider completing this lesson prior to lesson 24. |
| 26. Operations with Rational and Irrational Numbers | 45-60 mins | Must Have |
| 27. Debits and Credits | 60-90 mins | Must Have- consider using situation 3 as an extension activity. |